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SECTION **Page**

SPILL PREVENTION, CONTROL, AND COUNTERMEASURES
BEST MANAGEMENT PLAN

N O A A

NATIONAL WEATHER SERVICE
Flagstaff RDA Facility
Blue Ridge, Arizona

Designated Person Responsible for Spill Prevention (DRO):

Printed Name: Brian Klimowski - MIC

Signature: _____

Date: _____

Phone: 928-556-9161 Ext 222

The Regional Environmental Compliance Officer (RECO) has reviewed the facility and determined that an SPCC Plan is not required per 40 CFR 112. This Plan is developed strictly as a Best Management Plan. The determination is based on :

___ The facility does not exceed capacity.

__X___ The facility meets capacity requirements but, a discharge will not reach navigable waterways.

RECO Printed Name: Thanh Minh Trinh, P. E.
Phone: (206) 526-6647

RECO Signature: _____

Date: _____

PART I - GENERAL INFORMATION

A. GENERAL

This section of the Best Management Practices plan provides general information about the facility.

1. Name:
National Weather Service, Radar Acquisition Facility, Blue Ridge, Arizona

2. Date of Initial Operation: 1995 — Aboveground Fuel Tanks Installed

3. Location

National Weather Service RDA Site
Street: 5 miles South of the Blue Ridge Ranger Station
City: Blue Ridge
State/Zip: Arizona
Latitude: 34° - 34'- 28" North
Longitude: 111 °- 11'- 52" West
Elevation: 7417 ft. MSL

4. Name and phone number of Owner (POC)

National Weather Service Forecast Office
Hughes Ave., Bldg 49 (Camp Navajo)
Bellemont, Arizona 86015
Phone: (520) 556-9161

5. Facility Contacts (Environmental coordinator, Area Safety Representative, Alternate, Focal Point, First Responder)

Name	Title	Telephone Number
Donnie King	Envir. Focal Point	(928) 556-9161 Ext 261
Daryl Onton	Co-Envir Focal Point	(928) 556-9161
Brian Klimowski	MIC	(928) 556-9161 Ext 222

B. SITE DESCRIPTION AND OPERATIONS

This section describes the site and its operations.

1. Facility Location, Layout, and Operations

The facility is located on the Blue Ridge Mountain and is in the Blue Ridge Ranger District of the Coconino National Forest, in Coconino County, Arizona. The site is approximately 58-miles southeast of the National Weather Service (NWS) office which is located on the Camp Navajo Military Reservation near Belmont, Arizona (APPENDIX J, FIGURE 1). Access to the site is by wheeled or tracked vehicle. The unpaved access road to the site covers a distance of approximately 4-miles and can only be traversed via snow vehicle or All Terrain Vehicle (ATV) during winter or heavy snow conditions. Access time from Weather Forecast Office (WFO) can be from 1-1/2 hours to 2 hours depending upon the road and weather conditions. Radar data from this site are transmitted back to the WFO via telephone lines. The site is on land owned by the federal government and is administered by the U. S. Forest Service (USFS), Coconino National Forest, Blue Ridge Ranger District . The USFS granted a Special Use Permit for the use of this site by the NWS. The NWS site consists of a 210' x 210' parcel of ground with a 90' x 125' fenced area containing the NWS Radar Data Acquisition (RDA) facility which includes a 30 meter high radar antenna tower with a radome and antenna and a steel structured Snow Shelter which covers an Equipment Shelter, a Generator Shelter and an Emergency Living Shelter. The entire site is fence with a 8-foot high chain link fence with razor wire and locked gates .The site is located on large flat area of ground. (APPENDIX J -FIGURE 2). A 1,000-gallon Aboveground Storage Tank (AST) supplies diesel fuel to an emergency generator. The AST is located adjacent to the west side of the Snow Shelter. The AST is located away from vehicle traffic and parking areas.

2. Fuel Ullage

Fuel consumption at this remote site varies according to the generator operation. The generator is tested for a one-half-hour period each week and it is automatically started if the commercial power is interrupted. The generator is often started manually from the WFO when weather conditions threaten to interrupt the commercial power. Since the installation of a UPS unit, the AST is normally filled only once each year with approximately 700-gallons of #1 Diesel Fuel.

3. Fuel Storage

The fuel storage system consists of a 1,000-gallon, Convault, rectangular shaped AST and two 240-gallon steel day tanks which are interconnected with each other. The Convault AST is located on the outside of the Snow Shelter. The two steel day-tanks are located inside the Generator Shelter and the Generator Shelter is located inside the Snow Shelter building. The transfer is automatic and thus the Day-Tanks are maintained in a near-full condition. Fuel for the generator is then provided from the Day-Tanks. The Generator Shelter has sufficient spill containment capability to handle all of the oil in the Day-Tanks but not sufficient containment to also hold the contents of the 1000-gallon AST. The entire facility is located within a fenced area. Lighting from the side of the Snow Shelter building illuminates the AST loading area. The AST meets the Underwriter's Laboratory Standard 2085 for protected secondary containment. The primary steel tank is encased in a 6-inch thick reinforced concrete secondary containment vault. The AST is installed on a concrete pad. The AST has primary and emergency vents, as well as overfill protection that includes an automatic shutoff valve, an overfill alarm and a 7-gallon overfill bucket.

The AST is provided with an electronic monitoring and alarm system that monitors the interstitial area inside the tank for leakage. The system also monitors for overfill conditions. Should either an overfill or leakage in the interstitial area occur, the system provides both visual and audible alarms at the RDA site but this signal is not remoted to the Flagstaff WFO.

4. Piping

Piping for this system goes from the AST to a transfer pump, located in the Generator Shelter, and then into the Day-Tanks. A 1/2-inch supply line from the AST is encased in a 4-inch diameter polyvinyl chloride pipe that exits the AST from it's top and runs to the exterior wall of the Snow Shelter and then on through the wall of the Generator Shelter.

5. Spill Risks

The AST and associated generator are located in a very flat area of the National Forest. The slope of the ground is very gentle and the soil is porous with some clay. Any spilled fuel oil from the AST or the tank truck will pool to the north, south and west of the AST and will be absorbed by the soil (APPENDIX J - FIGURE 2). In the event of a fuel spill, from this site, waterways or water supply will not be impacted. In the event of diesel fuel spillage, all fuel should remain within a short distance of the NWS facilities and any soil contamination can be mitigated as required.

6. Chemical Storage Locations

In addition to the diesel fuel used for the emergency power generator, this facility also stores chemicals (e.g., oils, paint, solvents, antifreeze, cleaning compounds and pesticides) for the operation, maintenance and testing of station facilities and equipment. These are stored/used in the following location(s):

Location : (Example: Flammable locker next to the coffee mess)

a. Unused oil in original containers — Stored in the Snow Shelter
b. Paint in spray cans - Stored in Flammable Locker located in the Snow Shelter
c. Station Cleaning Supplies — Stored in the Snow Shelter
d. Lubricants in spray cans — Stored in Flammable Locker in the Snow Shelter
e. Pesticides — Stored in plastic container on shelf in station storage room
f. New Batteries — Stored in the Snow Shelter
g. New Fluorescent Light tubes — Stored in original containers in the Snow Shelter.

7. Permits Required (Copies Attached in Appendix H)

- Permits Not required

Part II - OPERATIONAL PROCEDURES FOR SPILL PREVENTION

A. Tank Refueling Operations. This section discusses the procedures that shall be used during unloading of fuel from the tank truck into the AST to prevent spills. This procedure shall be documented every time refueling occurs using the form found in Appendix A. Copies of this form shall be kept for five (5) years.

1. Ensure that the delivery driver understands the road conditions and the directions and problems associated with delivering fuel to this remote site.

2. The following procedure shall be used **before** fuel unloading: (APPENDIX A)

   a. The Facility Manager or his designated representative should determine the available capacity (ullage) of the AST by converting the reading on the fuel gauge to gallons (See Appendix A). This ullage is communicated to the fuel supply contractor and marked in the fueling log.

   b. Move spill containment equipment such as booms, spill barriers or spill kits into the unloading area.

   c. Block the tank truck wheels.

   d. Place drip pans under all pump hose fittings (if applicable) before unloading.

   e. The Facility Manager or his designated representative and the delivery driver ensure the fill nozzle is placed in the appropriate AST appurtenance.

3. The following procedure shall be used **during** the fuel unloading period: (APPENDIX A)

   a.. The Facility Manager or his designated representative and the delivery driver shall remain with or near the vehicle and the fuel tanks at all times during unloading. Gauges on the AST and the truck, as well as the fueling nozzle, shall be continuously monitored to ensure the ullage is not exceeded. If the audible high-level alarm sounds, stop the unloading procedure immediately to ensure fuel ullage is not exceeded.

4. The following procedure shall be used **after** fuel unloading is completed: (APPENDIX A)

   a. Record the amount of fuel transferred to the AST in the log (Appendix A).

   b. Drain the fill hose and then ensure that all drain valves are closed (if applicable) before removal of the hose from the tank

   c. Pour any uncontaminated fuel in the drip pans, tank truck containment pool, or spill pipe spill bucket container into the AST (if it has the capacity) or dispose of appropriately.

   d. Inspect the tank truck before removing the blocks to ensure the lines have been disconnected from the tank.

e. Remove the blocks from truck wheels.

f. Place a copy of the fuel-unloading checklist in the SPCC BMP.

PART III - SPILL COUNTERMEASURES AND REPORTING

A. SPILL COUNTERMEASURES

This section presents countermeasures to contain, clean up, and mitigate the effects of any oil spills at this site.

A spill containment and cleanup activity will never take precedence over the safety of personnel. No countermeasures will be undertaken until conditions are safe for workers. The **SWIMS** procedure should be implemented as countermeasures:

S - Stop the leak and eliminate ignition sources.

a. Attempt to seal or some how stop leak if it can be done safely.

b. Attempt to divert flow away from any drainage ditch, storm sewer or sanitary sewer with a spill barrier or the contents of spill kit. The spill kit is located in the Generator Building.

c. Eliminate all ignition sources in the immediate area.

W - Warn others.

a. Yell out "SPILL". Inform the person in-charge at your facility.

b. Account for all personnel and ensure their safety.

c. Notify contacts and emergency response contractor as described in the following section for assistance in control and cleanup.

I - Isolate the area.

a. Rope off the area

M - Minimize your exposure to the spilled material by use of appropriate clothing and protective equipment. If possible, remain upwind of the spilled material.

S - Standby to assist the emergency response contractor.

B. SPILL REPORTING (APPENDIX C):

1. General Notification Procedures For All Spills:

Within 24 hours, the responsible person or designee (on this plan title page or in Part 1, A.5.) is directly charged with reporting **all** oil spills that result from facility operations as follows:

a. In the event of an emergency (e.g., fire, or injury), call **911**.

b. Notify the appropriate persons within your WFO, Regional Office and line office:

National Weather Service:

Mike Jacob, NWS Environmental Compliance Officer (NWSH)

Phone number: **(301) 713-1838 Ext. 165, Jmichael.Jacob@NOAA.GOV**

Olga Kebis, NWS Safety Officer (NWSH)

Phone number: (301) 713-1838 Ext. 173, Olga.Kebis@NOAA.GOV

Robert Kinsinger, Regional Environmental Compliance Coordinator (ECC) in Western Region Headquarters

Phone number: (801) 524-5138 Ext. 223 Email: robert.kinsinger@noaa.gov

c. **NOAA Environmental Compliance and Safety Office Program:** E-mail or call your **RECO**.

WASC Thanh.M.Trinh@NOAA.GOV Phone: (206) 526-6647

d. **LECO – U.S. Forest Service**

Coconino National Forest Dispatcher Phone (928) 526-0600

Note: **LECO & RECO** must determine if Federal or State notification is required and follow up accordingly. (EPA requires notification of the National Response Center if: (1) A discharge of more than 1,000 gallons of oil into or upon navigable waters or adjoining shore lines in a single event **OR** (2) Two spill events that cause visible sheens upon navigable waters or adjoining shore lines within any 12-month period.

The National Response Center (800) 424-8802

2. Cleanup Contractor Notification

An emergency response contractor should also be notified to assist with the clean up if necessary. **NWS/WFO at Flagstaff,** has identified and contacted the following contractors that are available for an emergency response:

Contractor(s)	Phone Number
• P & S	(928) 526-0684
• Disposal Control Service Inc.	(602) 268-0999
• MP Environmental Services Inc.	(800) 833-7602

3. Spill Report

Complete a spill report using the format provided in APPENDIX C. Send this to your RECO with a copy to the Western Region ECC.

C. Training

The Environmental/Safety Focal Point and an alternate should be trained in 1)the refueling procedures, 2)countermeasures, and 3)spill reporting. The alternate should be designated in case the primary person is off site at the time of a spill.

(See APPENDIX D for Training Outline and Training Record form)

D. Personal Protective Equipment (PPE)

- PPE information is specified in the **MSDS**
- Eye protection is accomplished by the use of **Chemical Goggles**
- Hand protection is accomplished by the use of **Nitril Gloves**
- Other clothing & equipment - if contaminated, must be removed and laundered before reuse. Items which cannot be laundered should be discarded.
- Appropriate NIOSH-approved respiratory protection to avoid inhalation of mist or vapors which may be present under hot temperature conditions.

APPENDIX A

TANK ULLAGE/FUELING LOG AND FUEL UNLOADING PROCEDURES CHECKLIST

APPENDIX A-1

TANK ULLAGE AND FUELING LOG

Station Name: _____ Tank Capacity: _____ gallons

Date	Initials	Gauge Reading	Initial Volume of Fuel in Tank [a] (Gallons)	Available Capacity or Ullage [b] (Gallons)	Quantity Added (Gallons)	Comments

Notes:

a. From gage reading

b. Available capacity = tank capacity - initial volume of fuel in tank

APPENDIX A-2

FUEL UNLOADING PROCEDURE CHECKLIST

Date: _____ **Tank:** _____

NWS Representative: _____ **Supplier:** _____

√	ITEM	DESCRIPTION	COMMENTS
The following six items must be completed prior to fuel unloading:			
	1	Move spill containment equipment, such as booms or spill barriers, into the unloading area.	
	2	Ensure the audible high-level alarm system and automatic shutoff valve are functioning properly (if applicable).	
	3	Determine the available capacity (ullage) of the tank by converting the reading on the fuel gauge to gallons (see Appendix A-1). The ullage should then be marked in the fueling log and communicated to the tank truck unloading contractor.	
	4	Block the wheels of the tank truck.	
	5	Place drip pans under all pump hose fittings (if applicable) after the hose is hooked up to the tank and before unloading.	
	6	Ensure the fill nozzle is placed in the appropriate tank appurtenance.	
During unloading			
	7	Ensure that the NWS representative and the tank truck operator remain with the vehicle at all times during unloading.	
	8	Monitor the gauges on the tank and the truck continuously to ensure the ullage is not exceeded.	
After fuel unloading is completed			
	9	Record the amount of fuel unloaded in the log (Appendix A-1).	
	10	Before removing the fill hose from the tank, ensure that it is drained and that all drain valves are closed (if applicable).	
	11	Any fuel accumulated in the drip pans or spill container on the fill pipe should be poured into the tank (if it has the capacity) or disposed of appropriately (describe how it was disposed of, if applicable).	
	12	Inspect the tank truck before removing the blocks to ensure the lines have been disconnected from the tank.	
	13	Remove the blocks from the tank truck wheels.	
	14	Place a copy of this fuel unloading procedure checklist in the Best Management Plan.	

APPENDIX B

TANK INSPECTION CHECKLIST

MONTHLY INSPECTION CHECKLIST			
Date of Inspection:	**Tank Name or No.:**		
Date of Last Inspection:	**Inspected by:**	**Signature:**	
A. TANKS	**YES**	**NO**	**NOTES**
1. Are tanks marked properly?			
2. Is area atop and around tank and within berm free of combustible materials and debris? stains?			
3. Is there any oil on the ground, concrete, or asphalt around the tank?			
4. Are there any visible cracks or indications of corrosion on the tank, at fittings, joints, or seals (such as paint peeling or rust spots)?			
5. Are there any raised spots, dents, or cracks on the tank?			
6. Does it appear that the foundation has shifted or settled?			
7. Is the fuel gauge working properly?			
8. Are all vents clear so they may properly operate?			
9. If rainwater is present within containment, does capacity remain for spill control, if applicable?			
B. PIPING			
1. Is there any oil on the outside of or under any aboveground piping, hoses, fittings, or valves?			
2. Are aboveground piping, hoses, fittings, or valves in good working condition?			
C. SECURITY/SAFETY/SPILL COUNTERMEASURES			
1. Are lights working properly to detect a spill at night?			
2. Are all locks in the "lock" position?			
3. Are all warning signs properly posted and readable?			
4. Are vehicle guard posts in place and properly secured (if applicable)?			
5. Are spill kits easily accessible, protected from the weather, complete, and replenished if necessary?			
Corrective Actions Required:			

ANNUAL INSPECTION CHECKLIST (Page 1 of 1)				
Date of Inspection:	**Tank Name or No.:**			
Date of Last Inspection:	**Inspected by:**			
	Signature:			
A.	**MONTHLY CHECKLIST**	**YES**	**NO**	**NOTES**
1.	Have monthly inspection checklists been completed?			
B.	**TANKS**			
1.	Are all alarms and automatic shutoff devices working properly?			
2.	Is interstitial monitor functioning properly (if applicable)?			
C.	**OTHER**			
1.				
Corrective Actions Required:				

APPENDIX C

SPILL REPORTING

APPENDIX C

SPILL REPORTING

1. GENERAL

Name of Facility:	Address:
Completed By:	Organization:
Position:	Phone:

2. SPILL INFORMATION

Date:	Time:
Location at Facility:	Quantity:
Substance Spilled:	Other:

3. OUTSIDE NOTIFICATIONS: (Insert telephone numbers)

Agencies	Record the external regulatory agency representative name when making the calls.	Date & Time
Call **911** for emergency assistance		
Regional Management (see Part III Section B subparagraph 1.b) (801) 524-5138 Ext.223		
Line Office Environmental Compliance Officer (see Part III Sectin B subparagraph 1b) (301) 713-1838 Ext 165 or Ext 173		
NOAA, RECO (see Part III Section B subparagraph 1.c) (205) 526-6647		
EPA National Response Center or U.S. Coast Guard : (800) 424-8802		
State of Arizona Emergency Response Line Phone (602) 257-2330		
LECO — U.S. Forest Service Coconino National Forest Dispatcher Phone (928)526-0600		

4. INFORMATION ON SOURCE AND CAUSE

5. DESCRIPTION OF ENVIRONMENTAL DAMAGE

6. CLEANUP ACTION(S) TAKEN

7. CORRECTIVE ACTION(S) TO PREVENT FUTURE SPILLS

Note: All information must be filled in. If something is unknown, write “unknown”.
Copies must be sent, preferably by e-mail, to the NWS/NOAA personnel listed above.

APPENDIX D

TRAINING OUTLINE & TRAINING RECORD

APPENDIX D-1

TRAINING OUTLINE: SPILL PREVENTION, CONTROL AND COUNTERMEASURES

Training will be provided for facility personnel at the following times:

1. System startup or whenever new equipment is installed
2. Within the first week of employment for new personnel
3. Annually

The training will include complete instruction in the elements of the facility's Spill Prevention, Control, and Countermeasure plan and will include the following:

1. Pollution control laws, rules, and regulations including a summary of Title 40 of the Code of Federal Regulations Part 112 "Oil Pollution Prevention" (see Attachment)

2. Fuel Storage System

   A. Purpose and application of the following system elements:

      1. Tanks
      2. Piping
      3. Pumps
      4. Accessory equipment
      5. Electronic monitors

   B. Operation, maintenance, and inspection of system elements

3. Spill Prevention

   A. Potential spill sources
   B. Spill flow direction and impact on navigable waters
   C. Procedures to prevent spills, especially during fuel unloading

4. Spill Control

   A. Secondary containment
   B. Safety valves
   C. Pump and equipment shutoff switches
   D. Use of catch basin inlet covers or other diversionary devices

5. Spill Countermeasures

   A. Location and use of emergency phone numbers
   B. Location and use of fire extinguishers
   C. Location and use of spill cleanup kit
   D. Stopping the leak

APPENDIX D-2

TRAINING REPORT FORM

DATE OF TRAINING	EMPLOYEE TRAINED	TRAINER	REMARKS

APPENDIX E

MATERIALS SAFETY DATA SHEET ATTACHMENT

APPENDIX F

SPILL CLEANUP KIT INFORMATION ATTACHMENT

APPENDIX G

FUEL TANK DATA AND INFORMATION

APPENDIX H

PERMITS

APPENDIX I

PHOTOGRAPHS OF FACILITY TANKS AND PIPING

APPENDIX J (MAPS & DRAWINGS)